

**Notice of Allowability**

Application No.

09/516,653

Examiner

Brook Kebede

Applicant(s)

DOYLE, BRIAN

Art Unit

2823

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 14 April 2005.
2. ☒ The allowed claim(s) is/are 1-10, 12, 16-22 and 24-26.
3. ☒ The drawings filed on 31 March 2005 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

*Brook Kebede*  
BROOK KEBEDE  
PATENT EXAMINER

**DETAILED ACTION**

***Election/Restrictions***

1. Applicant's election without traverse of Species I (i.e., claims 1-10, 12, 16-22 and 24-26) in the reply filed on April 14, 2005 is acknowledged.

***Drawings***

2. The formal drawings were received on March 31, 2005. These drawings are acceptable.

***Remarks***

3. Although applicant indicates that claims 1-10, 12, 16-22, and 24-26 are the only pending claims in the application, there is no clear record that indicates cancellation of the previous non-elected claims, i.e., claims 29-38. In addition, applicant also indicates an intention to cancel the non-elected claims, i.e., claims 39-47 and 49-61, in response to the restriction requirement of March 23, 2005. In order to remove ambiguity, the examiner contacted Mr. Michael A. Bernadicou over the phone and acquired authorization of cancellation of all the non-elected claims as set forth in the examiner's amendment herein below.

**EXAMINER'S AMENDMENT**

4. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Michael A. Bernadicou on June 21, 2005.

5. The application has been amended as follows:

Art Unit: 2823

**In the Claims:**

Cancel claims 29-47 and 49-61.

Change claim 1 to --A method of forming a device comprising: patterning a first oxide upon a substrate; forming a first nitride spacer mask upon the first oxide; forming a first oxide spacer mask upon the first nitride spacer mask; forming a second nitride spacer mask upon the first oxide spacer mask; forming a plurality of channels in the substrate that are aligned to the second nitride spacer mask, wherein adjacent channels **have a width and** are spaced apart by a trench that is at least as wide as each of the channels, and wherein a doping region is disposed in the substrate beneath the trench that resists electrical communication between adjacent spaced-apart channels; and forming a gate layer over the plurality of channels, wherein **the channel width of** each of the plurality of channels is narrower than the mean free path of electron flow.--.

***Allowable Subject Matter***

6. Claims 1-10, 12, 16-22 and 24-26 are allowed over prior art of record.

***Reasons for Allowance*** ✓

7. The following is an examiner's statement of reasons for allowance:

After further search and reconsideration of applicant's response, it is determined that the rejection of claims 1-10, 12, 16-22 and 24-26 under 35 U.S.C. § 103(a) cannot be sustained as set forth in 35 U.S.C. § 103(c) (see Applicant's response in Page 15 that was filed on June 14, 2004).

***Conclusion***

8. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

Art Unit: 2823

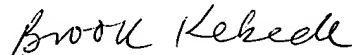
fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

*Correspondence*

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brook Kebede whose telephone number is (571) 272-1862. The examiner can normally be reached on 8-5 Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Olik Chaudhuri can be reached on (571) 272-1855. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Brook Kebede  
Examiner  
Art Unit 2823

BK  
June 22, 2005